



Exposed Duct Systems

McGill AirFlow
Corporation

Cover: McGill AirFlow's round duct system at the Virginia Air & Space Center in Hampton, Virginia, needed to meet special quality standards because it is a highly visible part of the building's architectural design.



1. Industrial applications such as the Potomac Electric Power Company building in Washington, DC, use exposed duct systems to supply air to large open areas.

2. At the Jackie Robinson Middle School in New Haven, Connecticut, exposed ductwork forms an integral part of the building's contemporary design.

3. The designers of this exposed duct system at the Washington Navy Yard in Washington, DC, have created a continuous spiral appearance by reducing the number of duct connectors and utilizing slot diffusers along the length of the ductwork.



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Quad Graphics
Martinsburg, West Virginia



Charley's Crab
Troy, Michigan



Shatto Recreation Center
Los Angeles, California

Exposed Duct Applications

When a duct system is hidden behind walls or ceilings, the only real consideration is how well it performs. But an exposed duct system needs to combine function and form. It should be both an efficient airflow system and an integral part of the building's architectural design. Because appearance is important, an exposed duct system needs to meet high quality standards. Special care must be taken in designing the system, selecting and manufacturing the products, and handling the materials.

Exposed duct systems are used in many types of buildings, including schools, malls, restaurants, and industrial plants. They can be installed almost anywhere as an alternative to systems hidden by ceilings. Typical applications are in retrofits of old facilities and in buildings with contemporary designs.

McGill AirFlow Corporation has extensive experience supplying exposed duct systems. We can work with you at all stages of your project, from design through installation. With our engineering and manufacturing capabilities, we can design and supply the exposed duct system that you envision.

Design Services

McGill AirFlow provides the most advanced duct system design services available. These services can be especially important to exposed duct systems, where visual requirements can limit airflow and acoustical performance. Our UNI-DUCT® computer program designs efficient duct systems with low initial costs and low operating costs. It also analyzes the system design acoustically to determine how much noise control is needed. Our CAD service provides double-line drawings of the duct system, enabling you to correct potential installation problems during the design stage. Detailed views of duct shape, reinforcement, and hanger support help you visualize how the installed duct system will look.

Complete Product Line

McGill AirFlow supplies a complete line of round, flat oval, and rectangular duct and fittings. With our standard product line and custom fabrication capabilities, we can help you meet your design requirements. Because most exposed duct systems are painted, our standard duct material is paintable galvanized steel. Special duct materials are also available, including stainless steel and aluminum. We can provide samples to show you exactly what you will be getting.

For exposed applications, round or flat oval UNI-RIB® spiral duct is the most visually appealing. When the spiral seams are aligned, it gives the appearance of a continuous length of duct. Our UNI-SEAM® ribbed elbows match the appearance of ribbed spiral duct. We can add to the continuous look by reducing the number of duct joints. One way is to fabricate long sections of duct: 20 feet or more for round spiral duct. Another way is to supply manifolds with built-in taps instead of using separate fittings. We can design the manifolds so that all spiral seams line up when installed.

Duct connectors, hangers, and reinforcements are a necessary part of any duct system, and we can work with you to develop special designs that minimize their use or make them as inconspicuous as possible. Insulation is often needed for thermal and acoustical control, but it does not have to detract from your visual design. Our single-wall, insulated and ACOUSTI-k27® double-wall, insulated duct have the same external appearance as standard spiral duct.

Quality Control

With seven regional manufacturing plants producing ductwork to exacting standards, we can supply uniform, quality products anywhere in the United States. But even the highest quality duct will look bad if it is damaged during shipping. Special handling and shipping practices can protect your ductwork from damage, and a McGill AirFlow representative is available to inspect all materials when they arrive. To minimize shipping and handling, particularly on large projects, we can use our mobile duct machine to fabricate duct on your jobsite. We can provide whatever special handling is necessary to make sure you get a visually pleasing exposed duct system.

Exposed duct systems can vary considerably in type and quality. Architects and engineers should be very specific about their desires and expectations. McGill AirFlow offers various written recommendations for exposed duct systems, depending on the quality desired and the economic constraints.



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4. The standing seam construction of our UNI-SEAM elbows matches the appearance of UNI-RIB spiral duct.

5. We can customize products such as the special duct hangers designed for the Virginia Air & Space Center in Hampton, Virginia.

6. By providing crates and other special handling, we can protect ductwork from damage during shipping.

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